Commonwealth of Kentucky

Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

AIR QUALITY PERMIT

Issued under 401 KAR 52:030

Permittee Name: CTA Acoustics, Inc.

Mailing Address: P.O Box 448

Corbin, Kentucky 40701

Source Name: same as above Mailing Address: same as above

Source Location: 100 CTA Boulevard – Southeast Ky. Regional Industrial

Authority Park

Permit Number: F-03-013 Log Number: 55629

Review Type: Construction/Operation

KYEIS ID #: 21-121-00062

SIC Code: 3714

Regional Office: London Regional Office

875 S. Main Street London, KY 40741 (606) 878-0157

County: Knox

Application

Complete Date: May 1, 2003
Issuance Date: October 20, 2003
Expiration Date: October 20, 2008

John S. Lyons, Director

John S. Lyons, Director Division for Air Quality

TABLE OF CONTENTS

SECTION	DATE OF ISSUANCE	PAGE
A. PERMIT AUTHORIZATION	October 20, 2003	1
B. EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS	October 20, 2003	2
C. INSIGNIFICANT ACTIVITIES	October 20, 2003	11
D. SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS	October 20, 2003	12
E. SOURCE CONTROL EQUIPMENT OPERATING REQUIREMENTS	October 20, 2003	13
F. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS	October 20, 2003	16
G. GENERAL PROVISIONS	October 20, 2003	22
H. ALTERNATE OPERATING SCENARIOS	October 20, 2003	25
I. COMPLIANCE SCHEDULE	October 20, 2003	25

Rev #	Permit type	Log#	Complete Date	Issuance Date	Summary of Action
	Initial Issuance	55629	05/01/03	10/20/03	New construction

Permit Number: <u>F-03-013</u> **Page:** <u>1</u> **of** <u>25</u>

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:030, Federally-enforceable permits for non-major sources.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

Permit Number: <u>F-03-013</u> **Page:** <u>2</u> **of** <u>25</u>

SECTION B - AFFECTED FACILLITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

EP01 2 Molding Lines

Description:

There are eight stacks for molding lines 1 and 2 that in total contain 30 molds.

Maximum usage rate of the phenolic resin/fiberglass: 6279 lbs/hr (Total for all 30 molds)

Control equipment: None

Construction commenced: August 2003

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:010**, *New process operations*, applies to the emissions of particulate from affected facilities constructed on or after July 2, 1975.

Regulation **401 KAR 63:020**, *Potentially hazardous matter or toxic substances*, applies to the emission of potentially hazardous matter or toxic substance from affected facilities constructed on or after July 9, 1972.

1. **Operating Limitations:**

The usage rate of materials used in all affected facilities shall be limited so as not to exceed the emission limitations listed in section B (2) below.

2. Emission Limitations:

- A. Pursuant to 401 KAR 59:010, Sec. 3: The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which equal to or greater than twenty (20) percent opacity.
- B. Pursuant to 401 KAR 59:010, Sec. 3: The permittee shall not cause, suffer, allow, or permit the emission into the open air from a control device or stack associated with any affected facility more than 2.34 lb/hr of particulate matter.
- C. See Section D for emission limitations of individual HAP and combined HAPs.

Compliance Demonstration Method:

(The "Total" used below is the total from all the 30 mold presses)

1. Particulate emission:

Hourly mass emission = (Total phenolic resin usage in pounds/hour) x (releasing emission factor)

2. VOC/HAP/Ammonia emissions:

Monthly Formaldehyde Emission = Σ [(Total monthly phenolic resin usage in pounds) x (HEXA wt. fraction) x (releasing emission factor) x 0.7]

Monthly Phenol Emission = Σ [(Total monthly phenolic resin usage in pounds) x (phenol wt. fraction) x (releasing emission factor) x 0.7]

Monthly VOC Emission = Σ [(Monthly Formaldehyde emission + Monthly Phenol Emission)]

Monthly Ammonia Emission = Σ [(Total monthly phenolic resin usage in pounds) x (HEXA wt. fraction) x (releasing emission factor) x 0.7]

(Note: HEXA: Hexamethylenetetramine)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Permit Number: F-03-013 Page: 3 of 25

3. Testing Requirements:

A. Testing shall be conducted at such times as may be required by the Cabinet in accordance with Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045.

4. Specific Monitoring Requirements:

The permittee shall visually observe opacity at least once per operating week and record results in a log, noting color, duration, density (heavy or light), cause and corrective action taken for any abnormal visible emissions.

5. Specific Recordkeeping Requirements:

- A. The following information shall be recorded:
 - 1. Pounds of fiberglass and phenolic resin used each day.
 - 2. Individual HAP (phenol and formaldehyde) percentage (by weight) of the fiberglass/phenolic resin used.
 - 3. HEXA percentage (by weight) of the phenolic resin/fiberglass used.
 - 4. Phenolic resin and fiberglass weight percent.
 - 5. Tons of VOC, ammonia, individual HAP, and combined HAPs emitted per rolling 12 consecutive month period
 - 6. All records, including MSDS, shall be retained at the source for a period of five years.
- B. Also See Section F for additional Specific Recordkeeping Requirements.

6. Specific Reporting Requirements:

- A. Any deviations from the requirements of section B shall be reported quarterly. If no deviations occur during a particular quarter, the permittee shall state this in the semiannual report. (See Section F)
- B. Each month the following information shall be reported to the Division's London Regional Office, with a copy to the Central office in Frankfort:
 - 1. The VOC emission calculation for each month.
 - 2. The ammonia emission calculation for each month.
 - 3. The individual HAP emission calculation for each month.
 - 4. The combined HAPs emission calculation for each month.
 - 5. The rolling 12-month total for VOC during each month.
 - 6. The rolling 12-month total for ammonia during each month.
 - 7. The rolling 12-month total of individual HAP for each month.
 - 8. The rolling 12-month total of combined HAPs for each month.

7. Specific Control Equipment Operating Conditions: N/A

8. <u>Alternate Operatings Scenarios:</u> N/A

Permit Number: <u>F-03-013</u> **Page:** <u>4</u> **of** <u>25</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP02 Line 1 FULL or SEMI CURE MAT INSULATION LINE Description:

Line 1 consists of the following units:

MP12 Blending room (resin and fiber blending process)

Maximum usage rate of the phenolic resin/fiberglass: 2854 lbs/hr

(22% Phenolic Resin/78% Fiberglass)

MP10 Curing oven

Maximum usage rate of the phenolic resin/fiberglass: 2854 lbs/hr

(-) Curing Oven (3 Burners)

Maximum rated input capacity: 3.2 mmBTU/hr/burner

(-) Chain lubrication oil

Maximum usage rate: 6 lbs/hr

MP13 Mat cooling zone/exhaust air

Control equipment:

7.

8.

MP 12 Dust collector is used to control particulate emission from blending room

Control efficiency: 99% efficiency

MP11 Thermal oxidizer #1 is used to control VOC/HAP emissions from curing oven.

Maximum rate capacity of the burner: 5.0 mmBTU

Specific Control Equipment Operating Conditions:

Alternate Operatings Scenarios:

Construction commenced: August 2003

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:010**, *New process operations*, applies to the emissions of particulate from affected facilities constructed on or after July 2, 1975.

Regulation **401 KAR 63:020**, *Potentially hazardous matter or toxic substances*, applies to the emission of potentially hazardous matter or toxic substance from affected facilities constructed on or after July 9, 1972.

1.	Operating Limitations:	See group requirements
2.	Emission Limitations :	See group requirements
3.	Testing Requirements:	See group requirements
4.	Specific Monitoring Requirements:	See group requirements
5.	Specific Recordkeeping Requirements:	See group requirements
6.	Specific Reporting Requirements:	See group requirements

See group requirements

See group requirements

Permit Number: <u>F-03-013</u> **Page:** <u>5</u> **of** <u>25</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP03 Line 2 FULL or SEMI CURE MAT INSULATION LINE Description:

Line 2 consists of the following units:

MP 22 Blending room (resin and fiber blending process)

Maximum usage rate of the phenolic resin/fiberglass: 2854 lbs/hr (22%Phenolic resin/78%Fiberglass)

MP 20 Curing Oven

Maximum usage rate of the phenolic resin/fiberglass: 2854 lbs/hr

(-) Curing Oven (3 burners)

Maximum rate capacity: 3.2 mmBTU/hr/burner

(-) Chain lubrication oil

Maximum usage rate: 6 lbs/hr

MP 23 Mat cooling zone/exhaust air

Control equipment:

MP 22 Dust collector is used to control particulate emission from blending room

Control efficiency: 99%

MP 21 Thermal oxidizer #2 is used to control VOC/HAP emissions from curing oven.

Maximum rate capacity of the burner: 5.0 mmBTU/hr

Construction commenced: August 2003

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:010**, *New process operations*, applies to the emissions of particulate from affected facilities constructed on or after July 2, 1975.

Regulation **401 KAR 63:020**, *Potentially hazardous matter or toxic substances*, applies to the emission of potentially hazardous matter or toxic substance from affected facilities constructed on or after July 9, 1972.

1. **Operating Limitations:** See group requirements 2. **Emission Limitations:** See group requirements **3. Testing Requirements:** See group requirements **Specific Monitoring Requirements:** 4. See group requirements 5. **Specific Recordkeeping Requirements:** See group requirements 6. **Specific Reporting Requirements:** See group requirements 7. **Specific Control Equipment Operating Conditions:** See group requirements 8. **Alternate Operatings Scenarios:** See group requirements

Permit Number: F-03-013 **Page:** 6 **of** 25

SECTION B - AFFECTED FACILLITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Group requirements for Emission points 02 and 03

APPLICABLE REGULATIONS:

Regulation 401 KAR 59:010, *New process operations*, applies to the emissions of particulate from affected facilities constructed on or after July 2, 1975.

Regulation **401 KAR 63:020**, *Potentially hazardous matter or toxic substances*, applies to the emission of potentially hazardous matter or toxic substance from affected facilities constructed on or after July 9, 1972.

1. Operating Limitations:

- A. The usage rate of materials used in all affected facilities shall be limited so as not to exceed the emission limitations listed in section B (2) below.
- B. VOC emissions shall be controlled when using resins containing greater than 0.5% by weight phenol.
- C. The permittee shall install, calibrate, maintain, and operate in accordance with manufacturer's specifications a weigh-scale device equipped with a continuous recorder.

2. Emission Limitations:

- A. Pursuant to 401 KAR 59:010, Sec. 3: The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which equal to or greater than twenty (20) percent opacity.
- B. Pursuant to 401 KAR 59:010, Sec. 3: The permittee shall not cause, suffer, allow, or permit the emission into the open air from a control device or stack associated with any affected facility more than 2.34 lb/hr of particulate matter.
- C. See Section D for Emission Limitations of individual HAP and combined HAPs.

Compliance Demonstration Methods:

Demonstrate that dust collector at blending room is in place and functional. Compliance is assumed, when blending process is operated in accordance with manufacturer's recommendation.

1. Hourly mass emission of particulate:

At blending room = (lb phenolic resin usage/hour) x (releasing emission factor) x (1- control equipment efficiency x capture efficiency)

At curing oven = (lb phenolic resin usage/hour) x (releasing emission factor)

2. VOC/HAP/Ammonia emissions at curing oven:

Monthly Formaldehyde Emission = ? [(Monthly phenolic resin usage in pounds) x (HEXA wt. fraction) x (releasing emission factor) x (1-destruction efficiency x capture efficiency) x 0.30]

Monthly Phenol Emission = Σ [(Monthly phenolic resin usage in pounds) x (phenol wt. fraction) x (releasing emission factor) x (1-destruction efficiency x capture efficiency) x 0.30]

Permit Number: <u>F-03-013</u> **Page:** <u>7</u> **of** <u>25</u>

AND OPERATING CONDITIONS (CONTINUED)

Monthly VOC Emissions = ? (Monthly Formaldehyde emission) + ? (Monthly Phenol emission)

Monthly Ammonia Emission = ? [(lbs phenolic resin usage from each EP) x (HEXA wt. fraction) x (releasing emission factor) x 0.30]

3. <u>Testing Requirements:</u>

- A. Testing shall be conducted at such times as required by the Cabinet in accordance with Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045.
- B. A capture efficiency test shall be performed for each line for VOC using the appropriate EPA Reference Test Methods.

4. **Specific Monitoring Requirements:**

- A. The permittee shall visually observe opacity at least once per operating week and record results in a log, noting color, duration, density (heavy or light), cause and corrective action taken for any abnormal visible emissions.
- B. During process, pressure drop across the dust collector shall be monitored recorded and monitoring daily.
- C. The permittee shall monitor the weight and type of resin being used on each line and the time of day that each type of resin is used.

5. **Specific Recordkeeping Requirements:**

- A. The date of each filter replacement shall be recorded.
- B. Minimum pressure drop indicating a need for filter replacement shall be recorded.
- C. The pressure drop across the dust collector shall be recorded daily.
- D. The permittee shall record the following information:
 - 1. Pounds of fiberglass and phenolic resin used each day.
 - 2. Time of day each type of resin is used.
 - 3. Individual HAP percentage (by weight) of the fiberglass/phenolic resin used.
 - 4. HEXA percentage (by weight) of the phenolic resin/fiberglass used.
 - 5. Phenolic resin and fiberglass weight percent.
 - 6. Tons of VOC, ammonia, individual HAP, and combined HAPs emitted per rolling 12 consecutive month period
 - 7. All records, including MSDS, shall be retained at the source for a period of five years.
- E. Also See Section F for additional Specific Recordkeeping Requirements.

6. **Specific Reporting Requirements:**

- A. The permittee shall report dates when filter is replaced and the highest-pressure drop observed. This shall be included in the monthly report. (See Section D)
- B. Any deviations from requirements of section B shall be reported quarterly. If no deviations occur during a particular quarter, the permittee shall state this in the semiannual report. (See Section F)
- C. The following information shall included in the monthly report:
 - 1. The total VOC emission for each month.

SECTION B - AFFECTED FACILLITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. The ammonia emission for each month.

Permit Number: F-03-013 Page: 8 of 25

- 3. The individual HAP emission for each month.
- 4. The combined HAPs emission for each month.
- 5. The rolling 12-month total for VOC during each month.
- 6. The rolling 12-month total for ammonia during each month.
- 7. The rolling 12-month total of individual HAP for each month.
- 8. The rolling 12-month total of combined HAPs for each month.
- 9. A sample calculation shall be included for each item.

7. Specific Control Equipment Operating Conditions:

- A. The dust collector shall be operated and maintained according to manufacturer's specifications.
- B. See Section E for Specific Control Equipment Operating Conditions for **Thermal** Oxidizers #1 and #2.

Permit Number: <u>F-03-013</u> **Page:** <u>9</u> **of** <u>25</u>

SECTION B - AFFECTED FACILLITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP06 (**EP42**) Makeup Air Heating Unit

Indirect heat exchanger Primary fuel: Natural Gas

Maximum rated capacity: 8.4 mmBTU/hr

EP07 (**EP43**) Makeup Air Heating Unit

Indirect heat exchanger Primary fuel: Natural Gas

Maximum rated capacity: 8.4 mmBTU/hr

EP08 (**EP44**) Makeup Air Heating Unit

Indirect heat exchanger Primary fuel: Natural Gas

Maximum rated capacity: 8.4 mmBTU/hr

Commencement date for EP06, EP07, and EP08: August 2003

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:015**, *New indirect heat exchangers*, applies to the particulate matter and sulfur dioxide emissions from the combustion of natural gas and fuel oil.

1. **Operating Limitations:**

Only pipeline grade natural gas shall be burned.

2. <u>Emission Limitations:</u>

A. Pursuant to 401 KAR 59:015, Section 4(1)(a), emissions of particulate matter from the combustion of natural gas shall not exceed the following:

Allowable
0.56 lb/mmBTU
0.56 lb/mmBTU
0.56 lb/mmBTU

- B. Pursuant to 401 KAR 59:015, Section 4(2), the opacity of visible emissions from the combustion of natural gas shall not exceed 20%.
- C. Pursuant to 401 KAR 59:015, Section 5(1)(a), emissions of sulfur dioxide from the combustion of natural gas shall not exceed the following:

Emission Point	Allowable
06	3.0 lb/mmBTU
07	3.0 lb/mmBTU
08	3.0 lb/mmBTU

Permit Number: <u>F-03-013</u> **Page:** <u>10</u> **of** <u>25</u>

SECTION B - AFFECTED FACILLITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations (continued):

Compliance Demonstration Method:

Compliance with emission limitations is assumed when the affected facilities comply with the terms and conditions of this permit.

- 3. Testing Requirements: None
- 4. **Specific Monitoring Requirements:** None
- 5. Specific Recordkeeping Requirements:

The permittee shall maintain monthly records of natural gas usage for the affected facilities.

- **6. Specific Reporting Requirements:** None
- 7. Specific Control Equipment Operating Conditions: None

Permit Number: <u>F-03-013</u> **Page:** <u>11</u> **of** <u>25</u>

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:030, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

	<u>Description</u>	Generally Applicable Regulation
1.	10 space heaters (125,000 Btu/hr/each)	N/A
2.	Stencil ink use on Line 3 acrylic coated insulation.	401 KAR 59:010
3.	EP05 (Line 4) Scrap process	401 KAR 59:010

Permit Number: <u>F-03-013</u> **Page:** <u>12</u> **of** <u>25</u>

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

Conditional Major Limits have been voluntarily accepted to preclude the requirements of Regulation 401 KAR 52:020, Title V permit, a major source status.

Plantwide individual HAP conditional major limitation

Individual HAP emissions shall be less than or equal to 9.8 tons during any twelve (12) consecutive month period.

Plantwide combined HAPs conditional major limitation

Combined HAPs emissions shall be less than or equal to 22.5 tons during any twelve (12) consecutive month period.

Plantwide emissions of any criteria pollutant shall be less than 90 tons during any consecutive twelve (12) month period.

The permittee shall submit a monthly report to the Division's London Regional Office, with a copy to the Central Office in Frankfort, containing information as required in reporting requirements in Sections B, and E. The addresses can be found in Section F of this permit.

Permit Number: <u>F-03-013</u> Page: <u>13</u> of <u>25</u>

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

Control Devices:

Thermal Oxidizer #1

Corbet Industries Afterburner (6000 SCFM Model) manufactured by Corbet Industries. Maximum rate capacity of the burner: 5.0 MMBtu/hr

Thermal Oxidizer #2

Corbet Industries Afterburner (6000 SCFM Model) manufactured by Corbet Industries. Maximum rate capacity of the burner: 5.0 MMBtu/hr

1. **Operating Limitations:**

A. The oxidizers controlling VOC emissions from emission points 02 and 03 shall maintain a 3-hour period average operating temperature that is at least equivalent to the 3-hour average temperature measured during the initial performance test on the oxidizers when material containing greater than 0.5% phenol is being applied.

Compliance Demonstration Methods:

Compliance shall be demonstrated by continuously recording temperature in the combustion chamber calculating the 3-hour period average operating temperature at 15-minute intervals.

- B. The permittee shall install, calibrate, maintain, and operate in accordance with manufacturer's specifications a temperature-monitoring device in the combustion chamber of the thermal oxidizers or in the duct immediately downstream of the combustion chamber before any substantial heat exchange occurs.
- C. The temperature-monitoring device shall have an accuracy of the greater of 0.75 percent of temperature measured expressed in degrees Celsius or $\pm 2.5^{\circ}$ C.
- D. The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes.

Permit Number: <u>F-03-013</u> **Page:** <u>14</u> **of** <u>25</u>

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENT (CONTINUED)

1. Operating Limitations (continued):

E. The flow control position indicator must be installed at the entrance to any bypass line that could divert the emissions away from the thermal oxidizer to the atmosphere.

2. Testing Requirements:

- A. The permittee shall conduct an initial performance test on the thermal oxidizers to determine the destruction efficiency for VOC/HAP emissions within six months following the issuance of this permit and every subsequent fifth year, using appropriate US EPA Reference Methods.
- B. Pursuant to Section VII 2(1) of the policy manual of the Division for Air Quality as reference by 401 KAR 50:016, Section 1. (1), the permittee shall submit a compliance test protocol at least one month prior to the projected test date.
- C. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.

3. **Specific Monitoring Requirements:**

- A. The temperature in the thermal oxidizer combustion chamber shall be monitored continuously during operation.
- B. The position of the damper flow control damper which diverts flow to or away from the oxidizer shall be monitored continuously.

4. Specific Recordkeeping Requirements:

- A. The permittee shall maintain records of the following information for the thermal oxidizers:
 - 1. The design and/or manufacturer's specifications.
 - 2. The operational procedures and preventive maintenance records.
 - 3. The combustion chamber temperature when the thermal oxidizers in operation.
 - 4. All 3-hour periods (during actual curing operations) during which the average combustion chamber temperature of the thermal oxidizer is more than 28°C (50°F) below the average combustion chamber temperature of the thermal oxidizer during the most recent performance test.
 - 5. During all periods of operation of the oxidizer in which the 3-hour average combustion chamber temperature of the thermal oxidizer is more than 28°C (50°F) below the average combustion chamber temperature of the thermal oxidizer during the most recent performance test, a daily log of the following information shall be kept:
 - a. Whether any air emissions were visible from the facilities associated with the thermal oxidizer.
 - b. Whether visible emissions were normal for the process.
 - c. The cause of the visible emissions.
 - 6. The permittee shall record direction, time, and the reason for each change of position of the flow control damper which diverts flow to or away from the oxidizer.
- B. All records shall be retained at the source for a period of five years.

Permit Number: <u>F-03-013</u> **Page:** <u>15</u> **of** <u>25</u>

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENT (CONTINUED)

5. **Specific Reporting Requirements:**

- A. The permittee shall identify, record, and submit a written report to the Division's London Field office of each instance in excess of 3 hours during which the average temperatures of the thermal oxidizers used to control emissions from processes remains more than 28°C (50°F) below that at which compliance was demonstrated during the most recent measurement of thermal oxidizer efficiency. If no such periods occur during a particular quarter, the permittee shall state this in the semiannual report. (See Section F)
- B. The permittee shall include in the monthly emission report the time, flow direction, and the reason for each change of position of the flow control damper which diverts flow to or away from the oxidizer. (See Section D)

Permit Number: <u>F-03-013</u> **Page:** <u>16</u> **of** <u>25</u>

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

- 1. Pursuant to Section 1b (IV)(1) of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030 Section 10, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place (as defined in this permit), and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
- 2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality[401 KAR 52:030 Section 3(1)(f)1a and Section 1a (7) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].
- 3. In accordance with the requirements of 401 KAR 52:030 Section 3(1)f the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit:
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.
 - d. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
- 4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
- 5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.

Permit Number: <u>F-03-013</u> **Page:** <u>17</u> **of** <u>25</u>

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:030 Section 22. All deviations from permit requirements shall be clearly identified in the reports.

- In accordance with the provisions of 401KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.
- The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.5 [Section 1b V(3) and (4) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].
- Pursuant to 401KAR 52:030, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit in accordance with the following requirements:
 - a. Identification of each term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

Permit Number: <u>F-03-013</u> **Page:** <u>18</u> **of** <u>25</u>

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. **Annual compliance certifications should be mailed to the following addresses:**

Division for Air Quality
London Regional Office

875 S. Main Street
London, KY 40741

Division for Air Quality
Central Files

803 Schenkel Lane
Frankfort, KY 40601

- 10. In accordance with 401KAR 52:030, Section 3(1)(d), the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KEIS emission survey is mailed to the permittee. If a KYEIS emission report is not mailed to the permittee, comply with all other emission reporting requirements in this permit.
- 11. Pursuant to Section VII (3) of the policy manual of the Division for Air Quality as referenced in 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days after the completion of the fieldwork.
- 12. The Cabinet may authorize the temporary use of an emission unit to replace a similar unit that is taken off-line for maintenance, if the following conditions are met:
 - a. The owner or operator shall submit to the Cabinet, at least ten (10) days in advance of replacing a unit, the appropriate Forms DEP7007AI to DD that show:
 - i. The size and location of both the original and replacement units; and
 - ii. Any resulting change in emissions;
 - b. The PTE of the replacement unit shall not exceed that of the original unit by more than twenty-five (25) percent of a major source threshold, and the emissions from the unit shall not cause the source to exceed the emissions allowable under the permit;
 - c. The PTE of the replacement unit or the resulting PTE of the source shall not subject the source to a new applicable requirement;
 - d. The replacement unit shall comply with all applicable requirements; and
 - e. The source shall notify Regional office of all shutdowns and start-ups.
 - f. Within six (6) months after installing the replacement unit, the owner or operator shall:
 - i. Re-install the original unit and remove or dismantle the replacement unit; or
 - ii. Submit an application to permit the replacement unit as a permanent change.

Permit Number: <u>F-03-013</u> **Page:** <u>19</u> **of** <u>25</u>

SECTION G - GENERAL PROVISIONS

(a) <u>General Compliance Requirements</u>

- 1. The permittee shall comply with all conditions of this permit. A noncompliance shall be a violation of 401 KAR 52:030 Section 3(1)(b) and is also a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to the termination, revocation and reissuance, revision, or denial of a permit [Section 1a (2) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].
- 2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a (5) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].
- 3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:030 Section 18. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:030 Section 12;
 - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the conditions of this permit[Sections 1a (6) and (7) of the *Cabinet Provisions and Procedures* for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030 Section 10].

Permit Number: <u>F-03-013</u> Page: <u>20</u> of <u>25</u>

SECTION G - GENERAL PROVISIONS (CONTINUED)

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:030 Section 7(1)].

- 6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a (11) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].
- 7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a (3) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].
- 8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a (12)(b) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].
- 9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038 Section 3(6) [Section 1a (9) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].
- 10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:030 Section 11(3)].
- 11. This permit does not convey property rights or exclusive privileges [Section 1a (8) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].
- 12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
- 13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.
- 14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.

Permit Number: <u>F-03-013</u> Page: <u>21</u> of <u>25</u>

SECTION G - GENERAL PROVISIONS (CONTINUED)

15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

- 16. Permit Shield A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
 - (a) Applicable requirements that are included and specifically identified in this permit; and
 - (b) Non-applicable requirements expressly identified in this permit.
- 17. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:030 Section 3(1)(c)].
- 18. The authority to operate granted through this permit shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:030 Section 8(2)].

(b) Permit Expiration and Reapplication Requirements

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:030 Section 12].

(c) <u>Permit Revisions</u>

- 1. Minor permit revision procedures specified in 401 KAR 52:030 Section 14 (3) may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:030 Section 14 (2).
- 2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

Permit Number: <u>F-03-013</u> Page: <u>22</u> of <u>25</u>

SECTION G - GENERAL PROVISIONS (CONTINUED)

(d) <u>Construction, Start-Up, and Initial Compliance Demonstration Requirements</u> **EP01, EP02, EP03, EP04, EP05, EP06, EP07, and EP08.**

- 1. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
- 2. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
 - a. The date when construction commenced.
 - b. The date of start-up of the affected facilities listed in this permit.
 - c. The date when the maximum production rate specified in the permit application was achieved.
- 3. Pursuant to 401 KAR 52:030, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
- 4. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.
- 5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration (*test*) on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. These performance tests must also be conducted in accordance with General Provisions G(d)6 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test
- 6. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

Permit Number: <u>F-03-013</u> Page: <u>23</u> of <u>25</u>

SECTION G - GENERAL PROVISIONS (CONTINUED)

7. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.

8. Pursuant to Section VII 1.(2 and 3) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), if a demonstration of compliance, through performance testing was made at a production rate less than the maximum specified in the application form, then the permittee is only authorized to operate at a rate that is not greater than 110% of the rate demonstrated during performance testing. If and when the facility is capable of operation at the rate specified in the application, compliance must be demonstrated at the new production rate if required by the Division.

(e) <u>Acid Rain Program Requirements</u>

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) <u>Emergency Provisions</u>

- 1. Pursuant to 401 KAR 52:030 Section 23(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and.
 - d. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two (2) working days of the time when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken.
- 2. Notification of the Division does not relieve the source of any other local, state or federal notification requirements.
- 3. Emergency conditions listed in General Provision G(f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:030 Section 23(3)].

Permit Number: <u>F-03-013</u> **Page:** <u>24</u> **of** <u>25</u>

SECTION G - GENERAL PROVISIONS (CONTINUED)

4. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof[401 KAR 52:030 Section 23(2)].

(g) <u>Risk Management Provisions</u>

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center P.O. Box 3346 Merrifield, VA, 22116-3346

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

(h) Ozone depleting substances

- 1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
 - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- 2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

Permit Number: <u>F-03-013</u> **Page:** <u>25</u> **of** <u>25</u>

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None